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News Releases and other News Material

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For further information about this booklet contact Charles Hobbs, editor, News Division, Office of Public Affairs, Room 406-A, U.S Department of Agriculture, Washington, D.C. 20250 or call (202) 720-4026.

News Releases-

Release No. 0128.93
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SCIENTISTS TO TELL PLANTS WHEN TO SHED--OR KEEP--LEAVES, FLOWERS, FRUIT

WASHINGTON, Feb. 16--U.S. Department of Agriculture scientists are coaxing genes to reveal how they make a plant shed its leaves, flowers and fruit, a strategy that could lead to larger crop harvests.

"We're testing many forms of a plant gene that makes cellulase. This enzyme breaks down the biochemical 'glue' that binds a leaf or flower to a stem," said molecular biologist Mark Tucker at the Agricultural Research Service's Plant Molecular Biology Laboratory in Beltsville, Md.

Tucker's research could lead to crops of apples, beans, cotton, oranges, nuts and tomatoes that can be harvested more easily and with less use of agricultural chemicals.

"Today, fruits often fall off a plant before the harvester gets to them," he said. "Or they may be bound so tightly to the stem that they get damaged when the harvester plucks them off." In some cases, he added, plant leaves interfere with fruit harvest.

Tucker is very close to isolating the cellulase gene's promoter or switch. The promoter is the gene's cue to order plant cells to make the cellulase enzyme.

"We would use the promoter to make a substance such as auxin," a plant hormone, Tucker said. "That would stop the gene from making cellulase when we don't want it made"--for example, when it causes premature abscission, or shedding, of flowers and fruit.

"It's been known for some 40 years that cells make cellulase and that it breaks down some component in the cell's wall. We need to find out more about how genes and hormones interact to drive this process, so we can modify the genes to control it."

Scientists already know the key hormones in abscission of leaves, flowers and fruit. Ethylene promotes it; auxin retards it.

To home in on the cellulase promoter, Tucker is "editing" the cellulase gene. He does this by testing--in gene-engineered tomato and bean plants--various fragments of the cellulase gene linked with a test, or reporter, gene known as GUS.

The GUS gene produces an enzyme detectable by lab tests. "So, if the plant cells make the GUS enzyme, we know the cellulase promoter is working," he said. "By taking progressively more pieces out of the cellulase gene promoter, we eventually reach a stage where the cells no longer make the GUS enzyme. That tells us that we've just deleted an important part of the promoter, and through deleting it, we find it."

Besides helping with the timing of harvest, he said, control of abscission could also make a maturing plant hang on to more flowers--which would translate to higher crop yields. About 70 to 80 percent of soybean flowers drop off prematurely.

Other scientists at the lab--part of the research agency's Beltsville Agricultural Research Center--are trying to control abscission by stopping ethylene production. This hormone stimulates cells to make cellulase, and also promotes plant aging and abscission.

An enzyme called ACC synthase is the key control over ethylene, said Autar Mattoo, the lab's research leader. He and colleagues are the first scientists to insert a soybean ACC synthase gene into bacteria, which then produced the enzyme in greater abundance and in an active form. Mattoo did the work with ARS research associate Ning Li and University of Maryland grad student Derong Liu.

"Eventually, we want to genetically engineer soybean plants to shut down ACC synthase. That would stop ethylene, cellulase, and as a consequence, abscission," Mattoo said.

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FGIS ADVISORY COMMITTEE MEETING POSTPONED

WASHINGTON, Feb. 16--The U.S. Department of Agriculture's Federal Grain Inspection Service today postponed a meeting of the agency's advisory committee scheduled for Feb. 24-25 in Washington, D.C.

FGIS Acting Administrator David Gallart said the meeting was postponed pending completion of a review of USDA advisory committees.

The FGIS advisory committee provides advice to the agency's administrator on implementation of the U.S. Grain Standards Act. It is comprised of 15 members appointed by the secretary of agriculture who represent all segments of the grain industry, including producers.

A public notice announcing the meeting appeared in the Feb. 4 Federal Register.



Release No. 0131.93
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USDA ANNOUNCES PREVAILING WORLD MARKET RICE PRICES

WASHINGTON, Feb. 16--Acting Under Secretary of Agriculture Charles J. O'Mara today announced the prevailing world market prices of milled rice, loan rate basis, as follows:

- long grain whole kernels, 8.25 cents per pound;
- medium grain whole kernels, 7.41 cents per pound;
- short grain whole kernels, 7.38 cents per pound;
- broken kernels, 4.12 cents per pound.

Based upon these prevailing world market prices for milled rice, loan deficiency payment rates and gains from repaying price support loans at the world market price level are:

- for long grain, \$1.57 per hundredweight;
- for medium grain, \$1.47 per hundredweight;
- for short grain, \$1.48 per hundredweight.

The prices announced are effective today at 3 p.m. EST. The next scheduled price announcement will be made Feb. 23 at 3 p.m. EST.



Releases No. 0132.93
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USDA REGULATES IMPORTATION OF NEW ZEALAND LOGS

WASHINGTON, Feb. 17--The U.S. Department of Agriculture today announced regulations for the importation of Monterey pine and Douglas-fir logs from New Zealand to control plant pest risks. The regulations stipulate certain requirements and treatments before and after importation.

"The Pacific Northwest timber industry is interested in importing large volumes of these logs, and restrictions are necessary to control the associated plant pest risks," said B. Glen Lee, deputy administrator for USDA's Animal and Plant Health Inspection Service.

To import these logs, importers must obtain a permit from APHIS and a certificate from the plant protection service of New Zealand. The certificate must state that the logs meet the health requirements specified by APHIS, including debarking and fumigation. The logs are then

subject to inspection by APHIS officials at the port of entry and to other post-importation requirements such as heat treatment at the sawmill or processing facility. The interim rule was published in the Feb. 16 Federal Register.

Comments on this action will be accepted if they are received on or before April 19. An original and three copies of written comments referring to docket number 91-074-4 should be sent to: Chief, Regulatory Analysis and Development, PPD, APHIS, USDA, Room 804 Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782.

Comments may be inspected at USDA, room 1141-S, 14th St. and Independence Ave., S.W., Washington, D.C., between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays.



Releases No. 0133.93
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USDA PROTECTS 32 NEW PLANT VARIETIES

WASHINGTON, Feb. 18-- The U.S. Department of Agriculture has issued certificates of protection to developers of 32 new varieties of seed-reproduced plants including, bean, bermudagrass, Kentucky bluegrass, chicory, corn, lettuce, pea, sorghum, soybean, tomato, watermelon and wheat.

Kenneth H. Evans, an official with USDA's Agricultural Marketing Service, said developers of the new varieties will have the exclusive right to reproduce, sell, import and export their products in the United States for 18 years. Certificates of protection are granted after a review of the breeders' records and claims that each new variety is novel, uniform and stable.

The following varieties have been issued certificates of protection: --the Agassiz and Guardian varieties of field bean, developed by the Rogers NK Seed Co., Nampa, Idaho;

--the UI 686 variety of field bean, developed by the University of Idaho, Kimberly, Idaho;

--the Primavera variety of bermudagrass, developed by the Farmers Marketing Corp., Phoenix, Ariz.;

--the Unique variety of Kentucky bluegrass, developed by Pure-Seed Testing Inc., Hubbard, Ore.;

--the Grasslands Puna variety of chicory, developed by the Grasslands Division, Dept. of Scientific & Industrial Research, Palmerston North, New Zealand;

--the LH212Ht variety of corn, developed by Holden's Foundation Seeds Inc., Williamsburg, Iowa;

--the PHR61, PHDD6, PHGG7, PHK74 and PHT73 varieties of corn developed by Pioneer Hi-Bred International Inc., Johnston, Iowa;

--the ICI 441 variety of corn, developed by ICI Seeds Inc., Coon Rapids, Iowa;

--the Encore variety of lettuce, developed by Royal Sluis B.V., Salinas, Calif.;

--the Revolution and Top Pod varieties of pea developed by the Rogers NK Seed Co., Boise, Idaho;

--the PHB86, PHA82, PHB82, PHA331, PHB331, PHB429, PHA432 and PHB432 varieties of sorghum, developed by Pioneer Hi-Bred International Inc., Des Moines, Iowa;

--the CX267 variety of soybean, developed by DeKalb Plant Genetics, DeKalb, Ill.;

--the Orion variety of tomato, developed the Harris Moran Seed Co., Davis, Calif.;

--the Tastigold variety of watermelon, developed by the Coffey Seed Co., Plainview, Texas;

--the Juliatt variety of watermelon, developed by the Rogers NK Seed Co., Boise, Idaho;

--the Rio Blanco variety of wheat, developed by AgriPro Biosciences Inc., Shawnee Mission, Kan.;

--the Wakefield and Madison varieties of wheat, developed by the Virginia Agricultural Experiment Station, Blacksburg, Va.; and

--the GR 900 variety of spelt wheat, developed by the Ohio State University Research Foundation, Wooster, Ohio

Certificates of protection for the UI 686 bean variety, the Grasslands Puna chicory variety and the Rio Blanco, Wakefield, Madison and GR 900 wheat varieties are being issued for sale by variety name only as a class of certified seed and to conform to the number generations specified by the owner.

USDA's AMS administers the plant variety protection program which provides marketing protection to developers of new and distinctive seed-reproduced plants ranging from farm crops to flowers.

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Release No. 0134.93

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USDA ANNOUNCES PREVAILING WORLD MARKET PRICE AND USER MARKETING CERTIFICATE PAYMENT RATE FOR UPLAND COTTON

Washington, Feb. 18--Randy Weber, acting executive vice president of USDA's Commodity Credit Corporation, today announced the prevailing world market price, adjusted to U.S. quality and location (adjusted world price), for Strict Low Middling (SLM) 1-1/16 inch (micronaire 3.5-3.6 and 4.3-4.9, strength 24-25 grams per tex) upland cotton (base quality) and the coarse count adjustment (CCA) in effect from 5:00 p.m. today through 3:59 p.m. Thursday, Feb. 25. The user marketing certificate payment rate announced today is in effect from 12:01 a.m. Friday, Feb. 19, through midnight Thursday, Feb. 25.

The Agricultural Act of 1949, as amended, provides that the AWP may be further adjusted if: (a) the AWP is less than 115 percent of the current crop year loan rate for base quality upland cotton, and (b) the Friday through Thursday average price quotation for the lowest-priced U.S. growth as quoted for Middling (M) 1-3/32 inch cotton, C.I.F. northern Europe (USNE price) exceeds the Northern Europe (NE) price. The maximum allowable adjustment is the difference between the USNE price and the NE price.

A further adjustment to this week's calculated AWP may be made in accordance with this provision. The calculated AWP is 90 percent of the 1992 upland cotton base quality loan rate, and the USNE price exceeds the NE price by 5.01 cents per pound. Following are the relevant calculations:

I.	Calculated AWP	47.26 cents per pound
	1992 Base Loan Rate	52.35 cents per pound
	AWP as a Percent of Loan Rate	90
II.	USNE Price	65.95 cents per pound
	NE Price	-60.94 cents per pound
	Maximum Adjustment Allowed	5.01 cents per pound

Based on a consideration of the U.S. share of world exports, the current level of cotton export sales and cotton export shipments, and other relevant data, no further adjustment to this week's calculated AWP will be made.

This week's AWP and coarse count adjustment are determined as follows:

Adjusted World Price	
NE Price	60.94
Adjustments:	
Average U.S. spot market location	11.82
SLM 1-1/16 inch cotton	1.55

Average U.S. location	0.31	
Sum of Adjustments	-	13.68
Calculated AWP		47.26
Further AWP adjustment	-	0
ADJUSTED WORLD PRICE		47.26 cents/lb.

Coarse Count Adjustment		
NE Price		60.94
NE Coarse Count Price	-	56.03
		4.91
Adjustment to SLM 1-1/32 inch cotton	-	3.95
COARSE COUNT ADJUSTMENT.....		0.96 cents/lb.

Because the AWP is below the 1991 and 1992 base quality loan rates of 50.77 and 52.35 cents per pound, respectively, the loan repayment rate during this period is equal to the AWP, adjusted for the specific quality and location plus applicable interest and storage charges. The AWP will continue to be used to determine the value of upland cotton that is obtained in exchange for commodity certificates.

Because the AWP is below the 1992-crop loan rate, cash loan deficiency payments will be paid to eligible producers who agree to forgo obtaining a price support loan with respect to the 1992 crop. The payment rate is equal to the difference between the loan rate and the AWP. Producers are allowed to obtain a loan deficiency payment on a bale-by-bale basis.

The USNE price has exceeded the NE price by more than 1.25 cents per pound for four consecutive weeks and the AWP has not exceeded 130 percent of the 1992 crop year base quality loan rate in any week of the 4-week period. As a result, the user marketing certificate payment rate is 3.76 cents per pound. This rate is applicable for bales opened by domestic users and for cotton contracts entered into by exporters for delivery prior to September 30, 1993. Relevant data used in determining the user marketing certificate payment rate are summarized below:

	For the Friday through	USNE	NE	Minus	User Certificate
Week	Thursday Period Ending	Price	Price	NE	Payment Rate 1/
		cents per pound	
1	Jan. 28, 1993	63.15	58.68	4.47	3.22
2	Feb. 4, 1993	61.95	58.73	3.22	1.97
3	Feb. 11, 1993	65.15	60.26	4.89	3.64
4	Feb. 18, 1993	65.95	60.94	5.01	3.76

1/ USNE price minus NE price minus 1.25 cents.

Next week's AWP, CCA and user marketing certificate payment rate will be announced on Thursday, Feb. 25.

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Release No. 0136.93
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FOOD LABELING EDUCATION DATABASE AVAILABLE AT NAL

WASHINGTON, Feb. 19--A database of food labeling education activities throughout the United States is now available from the U.S. Department of Agriculture's National Agricultural Library.

The database, which will be updated regularly, includes projects,

research and educational materials, including brochures and videotapes. It was created to assist those working to develop education programs on the new food labeling laws.

Information from the database is available by contacting Gina McNeal at (301) 504-5719 or by writing: Food Labeling Education Information Center, National Agricultural Library, Room 304, 10301 Baltimore Blvd., Beltsville, Md. 20705-2351.



Release No. 0137.93
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USDA TO AMEND FEDERAL MILK ORDERS

WASHINGTON, Feb. 19--The U.S. Department of Agriculture has decided to amend all federal milk marketing orders to make a three-class pricing system standard and provide a mechanism for pricing reconstituted milk similarly to the way fresh whole milk is priced.

Kenneth C. Clayton, acting assistant secretary for marketing and inspection services, said that previously a few orders had only two classes and those that had three classes did not classify all milk the same.

The three class system prices milk by its uses, with Class I milk (used for drinking) receiving a premium over Class II milk (used for soft products like cottage cheese, ice cream and yogurt). Class III milk, which is used for milk powder, butter and hard cheese, receives the lowest price.

The amendments change the method of accounting and pricing for reconstituted milk used for drinking purposes. Under the old system, the Class I use of such reconstituted milk was retained for producers in the local market. Under the changes adopted in the final decision, concentrated and nonfat dry milk shipped between markets and reconstituted for Class I use will be accounted for and priced similar to transfers of bulk fluid milk. In this way, the higher value of the reconstituted milk may be passed back to producers in the shipping market.

USDA has decided that no changes should be made in Class I and Class II milk prices. Changes in Class III prices were not under consideration for this amendment.

The decision to amend the orders is based on a national hearing held in the fall of 1990. A recommended decision was issued Nov. 6, 1991. Interested parties were given until Jan. 31, 1992, to comment on USDA's recommendations.

None of the amended orders will become effective until approved by dairy farmers. USDA will conduct referenda in eight markets and poll dairy farmer cooperatives in 32 markets to determine if dairy farmers favor the amended orders.

Details of the amendments have been provided to affected dairy farmers. In addition, the amendments will soon be published as a "final decision" in the Federal Register. To request copies when they become available, contact the Dairy Division, AMS, USDA, Rm. 2968-S, Box 96456, Washington, D.C. 20090-6456, telephone (202) 720-4829, or any federal milk market administrator's office.



Feature-

Release No. 0135.93
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NEW CAYENNE PEPPER IS HOT STUFF

WASHINGTON, Feb. 19--A new cayenne pepper that's so hot it makes jalapeños and tabascos seem mild by comparison is now available to home gardeners.

The new pepper, called Charleston Hot, "is spicy and as hot as any cayenne pepper I've tasted," said Philip D. Dukes, a U.S. Department of Agriculture scientist in Charleston, S.C. "It's ideal for chili and other hot foods."

Among well-known chili peppers, "Charleston Hot is more than 20 times hotter than a jalapeño pepper and two to three times hotter than a tabasco pepper," said Dukes, a plant pathologist with USDA's Agricultural Research Service. He and agency plant geneticist Richard L. Fery developed Charleston Hot at the agency's U.S. Vegetable Laboratory in Charleston. Dukes said Charleston Hot is ideal for home gardeners because it is compact, has high yields and is resistant to all four known types of southern root knot nematode and to other species of that pest.

The nematode damages plant roots, cutting yields by up to 50 percent and killing a plant under extreme conditions, Dukes said. Charleston Hot reduced root knot nematodes by 95 percent in field trials.

"Home gardeners will like this new variety because it doesn't take up as much space as other cayenne pepper varieties," says Dukes. "It only grows to about 18 inches high. It's also colorful and produces excellent yields of about two pounds of fresh peppers per plant. We think it will also appeal to commercial growers."

Dukes and Fery developed the new variety after more than a decade of pepper research. Charleston Hot is a sister variety of another cayenne pepper called Carolina Cayenne, also developed by Fery, Dukes and Roy Ogle of Clemson University.

Dukes said Charleston Hot also has an unusual trait for a cayenne pepper--it changes through a rainbow of colors as it ripens. The pepper starts out yellow-green--the color of the plant foliage--and changes to golden yellow, bright orange and then to a deep red when it matures.

At maturity, a Charleston Hot pepper is about four inches long. One plant will produce about 150 pepper pods that collectively weigh about one-half pound when dried, he said.

Charleston Hot can be grown almost anywhere in the United States, Dukes said. Seed is available to breeders and gardeners alike by writing to him at the U.S. Vegetable Laboratory, 2875 Savannah Highway, Charleston, S.C. 29414-5334.



